

AMENDMENTS TO THE CLAIMS

The listing of claims below replace all prior versions, and listings, of claims:

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1           1.     (Original) A system comprising:  
2                     an interface to receive a request from a client system for information in a  
3     database system; and  
4                     a controller to format metadata associated with the requested information  
5     into a format for display in the client system,  
6                     the controller further to map plural data types in the database system to  
7     corresponding file types to enable presentation in the client system of an object having an  
8     associated data type retrieved from the database system.

1           2.     (Original) The system of claim 1, wherein the controller comprises a  
2     network communications service to receive the request from the client system.

1           3.     (Original) The system of claim 2, wherein the network communications  
2     service comprises a Hypertext Transport Protocol service.

1           4.     (Original) The system of claim 1, the controller to format the metadata  
2     into a predetermined format displayable by a browser.

1           5.     (Original) The system of claim 4, wherein the predetermined format  
2     comprises a format selected from the group consisting of a Hypertext Markup Language  
3     format, an Extensible Markup Language format, and a Wireless Markup Language  
4     format.

1           6.     (Original) The system of claim 1, wherein the database system comprises  
2     an object relational database system.

AI 1 7. (Original) The system of claim 1, wherein the plural data types comprise  
2 two or more of the following: audio data, video data, multimedia data, image data, and  
3 geospatial data.

1 8. (Original) The system of claim 1, further comprising a storage element  
2 containing an object retrieved from the database system, the controller to communicate  
3 data in the object as a stream to the client system.

1 9. (Original) The system of claim 8, wherein the controller communicates  
2 portions of the object to the client system in the stream so that the entire object need not  
3 be communicated to the client system for storage.

1 10. (Original) The system of claim 1, wherein the metadata comprises a  
2 hyperlink.

1 11. (Original) The system of claim 10, the interface to receive a second  
2 request indicating selection of the hyperlink, the hyperlink corresponding to the object in  
3 the database system.

1 12. (Original) The system of claim 11, the controller to determine a data type  
2 of the object and to map the data type to a corresponding file type.

1 13. (Original) The system of claim 1, wherein the metadata contains a  
2 description of plural objects in the database system.

1 14. (Original) The system of claim 13, wherein the description comprises  
2 hyperlinks corresponding to the plural objects.

1           15.   (Currently Amended) A method of accessing an object relational database,  
2 comprising:

3                   loading an applet over a network from a server;

4                   executing the applet to present an interactive interface in a browser display  
5 screen to receive user queries and to send requests for information from the object  
6 relational database in response to the user queries;

7                   receiving metadata relating to requested information from the object  
8 relational database;

9                   displaying at least a portion of the metadata as a hyperlink;

10                  in response to selection of the hyperlink, sending a request for an object in  
11 the object relational database, the object containing information associated with the  
12 selected metadata portion; and

13                  associating the object with one of plural presentation routines to present  
14 the information in the object.

1           16.   (Currently Amended) The method of claim 15, further comprising  
2 displaying the metadata in [[a]] the browser screen.

1           17.   (Original) The method of claim 16, further comprising associating plural  
2 data types stored in the object relational database with corresponding plural file types.

1           18.   (Original) The method of claim 17, wherein associating the object with  
2 one of plural presentation routines is based on the file type of the object.

1           19.   (Original) The method of claim 15, further comprising invoking the one  
2 presentation routine as a plug-in to a browser.

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1           20.   (Currently Amended) An article comprising at least one storage medium  
2 containing instructions that when executed cause a first system to:  
3               receive a request from a client system for data in a database;  
4               retrieve the data from the database; and  
5               determine a data type of the retrieved data and map the data type to a file  
6 type presentable by the client system,  
7               wherein mapping the data type to the file type comprises accessing a data  
8 structure that maps plural data types associated with data stored in the database with  
9 corresponding plural file types presentable by the client system.

1           21.   (Original) The article of claim 20, wherein the instructions when executed  
2 cause the first system to:  
3               retrieve metadata describing the requested data; and  
4               format the metadata according to a predetermined format displayable by  
5 the client system.

1           22.   (Original) The article of claim 21, wherein the predetermined format  
2 comprises one of a Hypertext Markup Language format, an Extensible Markup Language  
3 format, and a Wireless Markup Language format.

1           23.   (Original) The article of claim 21, wherein the metadata comprises a  
2 hyperlink, the instructions when executed causing the first system to receive activation of  
3 the hyperlink and to retrieve the data in response to the activation of the hyperlink.

1           24.   (Original) The article of claim 20, wherein the instructions when executed  
2 cause the first system to retrieve an object from an object relational database.

1           25.   (Original) The article of claim 20, wherein the database stores rules  
2 pertaining to presentation of the data in the client system, the instructions when executed  
3 causing the first system to access the rules to map the data type to the file type.

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1           26.   (Currently Amended) A database system comprising:  
2                   one or more storage devices containing an applet and a document;  
3                   an interface to a network; and  
4                   a controller to communicate the document to a client device, the document  
5 containing data defining a page displayable in a browser screen, and the applet containing  
6 instructions that when executed provide an interactive portion of the browser screen to  
7 enable user entry of Structured Query Language (SQL) queries,  
8                   the applet responsive to SQL queries entered in the interactive portion of  
9 the browser screen by sending corresponding requests for accessing data in a database  
10 system.

1           27. - 29. (Cancelled)

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1           30.   (New) The system of claim 1, wherein the controller is adapted to  
2 communicate the requested information and executable code associated with the  
3 requested information to the client system, the executable code for presenting the  
4 requested information in the client system.

1           31.   (New) The system of claim 1, wherein the controller is adapted to further  
2 receive presentation information stored in the database system, the presentation  
3 information defining a manner in which the requested information is to be presented by  
4 the client system.

1           32.   (New) The system of claim 31, wherein the controller is adapted to use the  
2 presentation information to map the data types to the file types.

1           33.   (New) The system of claim 1, further comprising a storage to store a data  
2 structure mapping plural data types of data stored in the database system to file types  
3 presentable by the client system.

A. 1           34.   (New) The method of claim 15, further comprising:  
2                   receiving at least one of a Hypertext Markup Language (HTML),  
3   Extensible Markup Language (XML), and Wireless Markup Language (WML) file to  
4   present the browser display screen.

1           35.   (New) The method of claim 34, wherein the at least one of the HTML,  
2   XML, and WML file causes a first frame to be presented in the browser display screen,  
3   the method further comprising invoking the applet in response to user selection of an  
4   element in the first frame,  
5                   wherein the interactive interface is presented in a second frame in the  
6   browser display screen.

1           36.   (New) The article of claim 20, wherein the instructions when executed  
2   cause the first system to communicate executable code stored in the database and  
3   associated with the retrieved data to the client system, the executable code for presenting  
4   the retrieved data in the client system.

1           37.   (New) The system of claim 26, wherein the applet is invoked in response  
2   to user selection of an element in a first frame of the browser screen,  
3                   the interactive portion being part of a second frame of the browser screen.

1           38.   (New) The system of claim 37, wherein the browser screen comprises a  
2   third frame to display a result page in response to a request for data in the database  
3   system,  
4                   the result page containing at least one hyperlink selectable by a user to  
5   retrieve an object from the database system.

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